**Giai phuong trinh bac 2**

#python 3.5.2

import math

a = 0

b = 0

c = 0

if a == 0:

if b == 0:

if c == 0: print ("Phuong trinh vo so nghiem")

else:

print ("Phuong trinh vo nghiem")

else:

print ("Phuong trinh co nghiem:", -c/b)

else: delta = b\*b - (4\*a\*c)

if delta > 0 :

print ("Phuong trinh co hai nghiem")

elif delta == 0: print ("Phuong trinh co 1 nghiem")

else: print ("Phuong trinh vo nghiem")

**so nguyen to**

#python 3.5.2

import math

num = 3

flag = "true"

for i in range(2,num):

if num%i == 0:

flag = "false"

break

if flag == "true":

print ("la so nguyen to")

else:

print (" k la so nguyen to")

**so nguyen to dung fuction**

#python 3.5.2

import math

a = 3

b = 10

def Songuyento(num):

for i in range(2,num):

if num%i == 0:

return "false"

break

return "true"

for i in range (a, b+1):

if Songuyento(i) == "true" :

print ( i )

def print\_args(\*args):

for arg in args:

print (arg)

def print\_kwargs (\*\*kwargs):

for k, v in kwargs.items();

print ("%s: %s" % (k,v))

print\_args ("one", "two", "three")

print\_args ("one", "two", "three", "four")

print\_kwargs (name ="jane",, surname = "Doe")

print\_kwargs ( age = 10)

xs = [3,1,2]

print(xs,xs[2])

print(xs[-1])

xs[2]= 'foo'

print(xs)

xs.append('bar')

print(xs)

x = xs.pop()

print(x,xs)

nums = list(range(5))

print(nums)

print(nums[2:4])

print(nums[2:])

print(nums[:2])

print(nums[:])

print(nums[:-1])

print(nums[:-2])

nums[2:4]= [8,9]

print(nums)

*[0, 1, 2, 3, 4]*

*[2, 3]*

*[2, 3, 4]*

*[0, 1]*

*[0, 1, 2, 3, 4]*

*[0, 1, 2, 3]*

*[0, 1, 2]*

*[0, 1, 8, 9, 4]*

animals = ['cat','dog','monkey']

for animals in animals:

print(animals)

animals = ['cat','dog','monkey']

for idx, animals in enumerate(animals):

print('#%d:%s'%(idx+1,animals))

*cat*

*dog*

*monkey*

*#1:cat*

*#2:dog*

*#3:monkey*

nums = [0,1,2,3,4]

squares = []

for x in nums:

squares.append(x\*\*2)

print(squares)

[0]

[0, 1]

[0, 1, 4]

[0, 1, 4, 9]

[0, 1, 4, 9, 16]

d = {'cat':'cute','dog':'furry'}

print(d['cat'])

print('cat' in d)

d['fish'] = 'wet'

print(d['fish'])

print(d.get('monkey','N/A'))

print(d.get('fish','N/A'))

del d['fish']

print(d.get('fish','N/A'))

cute

True

wet

N/A

wet

N/A

d = {'person':2,'cat':4,'spider':8}

for animal in d:

legs = d[animal]

print('A %s has %d legs'%(animal,legs))

d = {'person':2,'cat':4,'spider':8}

for animal,legs in d.items():

print('A %s has %d legs'%(animal,legs))

A person has 2 legs

A cat has 4 legs

A spider has 8 legs

A person has 2 legs

A cat has 4 legs

A spider has 8 legs

nums = [0,1,2,3,4]

even\_num\_to\_square = {x:x\*\*2 for x in nums if x % 2 == 0}

print (even\_num\_to\_square)

{0: 0, 2: 4, 4: 16}

keys = ['david','chris','stewart']

vals = ['504','637','921']

d = dict(zip(keys,vals))

print(d)

{'david': '504', 'chris': '637', 'stewart': '921'}

animals - {'cat','dog'}

print ('cat' in animals)

print('fish' in animals)

animals.add('fish')

print('fish' in animals)

print (len(animals))

animals.add('cat')

print(len(animals))

animals.remove('cat')

print

d = {(x,x+1): x for x in range (10)}

print(d)

t(5,6)

print(type(t))

print(d[t])

print(d[(1,2)])

{(0, 1): 0, (1, 2): 1, (5, 6): 5, (2, 3): 2, (4, 5): 4, (6, 7): 6, (8, 9): 8, (9, 10): 9, (3, 4): 3, (7, 8): 7}

import numpy as np

a=np.zeros((2,2))

print(a)

b= np.ones ((1,2))

print(b)

c = np.full((2,2),7)

print(c)

d=np.eye(2)

print(d)

e=np.random.random((2,2))

print(e)

[[0. 0.]

[0. 0.]]

[[1. 1.]]

[[7 7]

[7 7]]

[[1. 0.]

[0. 1.]]

[[0.93586235 0.74749345]

[0.86504501 0.53362659]]

import numpy as np

a = np.array([[1,2,3,4],[5,6,7,8],[9,10,11,12]])

b = a[:2, 1:3]

print(b)

print(a[0,1])

b[0,0] = 77

print (b)

[[2 3]

[6 7]]

2

[[77 3]

[ 6 7]]

import numpy as np

M = np.array ([[1,2,3],

[4,5,6],

[7,8,9]])

v = np.array([[1],[2],[3]])

print (v+v)

print(3 \*v)

[[2]

[4]

[6]]

[[3]

[6]

[9]]